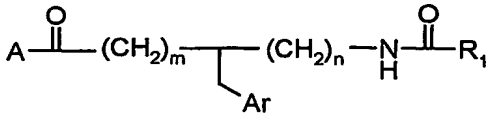
## CLAIMS

1. A compound of structural formula (I):



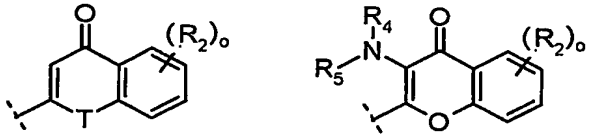
(I)

or a pharmaceutically acceptable salt or a solvate thereof, wherein

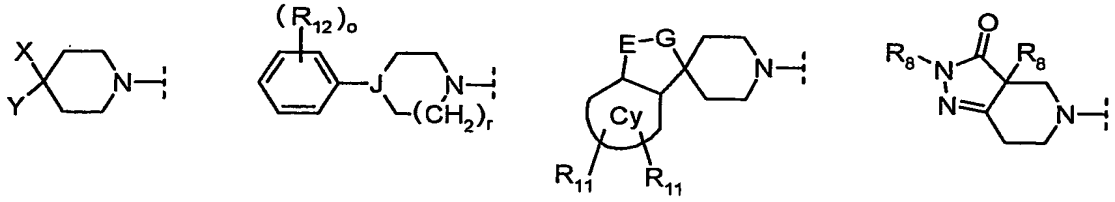
Ar is:

aryl or heteroaryl which may both be substituted;

$R_1$ is:



A is:



$R_2$ is independently:

hydrogen,

halo,

alkyl,

haloalkyl,

hydroxy,

alkoxy,

S-alkyl,
$SO_2$-alkyl,
O-alkenyl,
S-alkenyl,
$NR_{14}C(O)R_{14}$,
$NR_{14}SO_2R_{14}$,
$N(R_{14})_2$,
(D)-cycloalkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen), and
wherein aryl, heteroaryl, heterocyclyl, alkyl and cycloalkyl are substituted or unsubstituted, and two adjacent $R_2$ may form a 4- to 7-membered ring;

$R_4$ and $R_5$ are each independently:
hydrogen,
alkyl or
(D)-cycloalkyl, or
$R_4$ and $R_5$ together with the nitrogen to which they are attached form a 5- to 8-membered ring,
wherein alkyl and cycloalkyl are unsubstituted or substituted;

$R_8$ is independently:
hydrogen,
alkyl,
(D)-aryl or
(D)-cycloalkyl;

$R_9$ is independently:
hydrogen,
alkyl,
(D)-aryl,

(D)-heteroaryl or
(D)-cycloalkyl;

$R_{10}$ is independently:
$R_9$,
(D)-heterocyclyl,
(D)-$N(Y)_2$,
(D)-NH-heteroaryl or
(D)-NH-heterocyclyl,
wherein aryl, heteroaryl, alkyl, D, cycloalkyl and heterocyclyl are substituted or unsubstituted, or
two $R_{10}$ groups together with the atoms to which they are attached form a 5- to 8-membered mono- or bi-cyclic ring system;

$R_{11}$ is:
hydrogen,
halo,
alkyl,
alkoxy,
C≡N,
$CF_3$ or
$OCF_3$;

$R_{12}$ is independently:
hydrogen,
hydroxy,
cyano,
nitro,
halo,
alkyl,
alkoxy,
haloalkyl,
(D)-$C(O)R_{14}$,

(D)-$C(O)OR_{14}$,
(D)-$C(O)SR_{14}$,
(D)-C(O)-heteroaryl,
(D)-C(O)-heterocyclyl,
(D)-$C(O)N(R_{14})_2$,
(D)-$N(R_{14})_2$,
(D)-$NR_{14}COR_{14}$,
(D)-$NR_{14}CON(R_{14})_2$,
(D)-$NR_{14}C(O)OR_{14}$,
(D)-$NR_{14}C(R_{14})=N(R_{14})$,
(D)-$NR_{14}C(=NR_{14})N(R_{14})_2$,
(D)-$NR_{14}SO_2R_{14}$,
(D)-$NR_{14}SO_2N(R_{14})_2$,
(D)-$NR_{14}$(D)-heterocyclyl,
(D)-$NR_{14}$(D)-heteroaryl,
(D)-$OR_{14}$,
$OSO_2R_{14}$,
(D)-$[O]_q$(cycloalkyl),
(D)-$[O]_q$(D)aryl,
(D)-$[O]_q$(D)-heteroaryl,
(D)-$[O]_q$(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen when q=1),
(D)-$SR_{14}$,
(D)-$SOR_{14}$,
(D)-$SO_2R_{14}$ or
(D)-$SO_2N(R_{14})_2$,
wherein alkyl, alkoxy, cycloalkyl, aryl, heterocyclyl and heteroaryl are substituted or unsubstituted;

$R_{14}$ is independently:
hydrogen,
alkyl,
haloalkyl,

(D)-cycloalkyl,
(D)-phenyl,
(D)-naphthyl,
(D)-heteroaryl,
(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen), and
wherein phenyl, naphthyl, heteroaryl, heterocyclyl, alkyl and cycloalkyl are substituted or unsubstituted;

X is:

alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-heterocyclyl,
(D)-C≡N,
(D)-CON($R_9R_9$),
(D)-$CO_2R_9$,
(D)-$COR_9$,
(D)-$NR_9C(O)R_9$,
(D)-$NR_9CO_2R_9$,
(D)-$NR_9C(O)N(R_9)_2$,
(D)-$NR_9SO_2R_9$,
(D)-$S(O)_pR_9$,
(D)-$SO_2N(R_9)(R_9)$,
(D)-$OR_9$,
(D)-$OC(O)R_9$,
(D)-$OC(O)OR_9$,
(D)-$OC(O)N(R_9)_2$,
(D)-$N(R_9)(R_9)$ or
(D)-$NR_9SO_2N(R_9)(R_9)$,
wherein aryl, heteroaryl, alkyl, D, cycloalkyl and heterocyclyl are unsubstituted or substituted;

Y is:

hydrogen,
alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heterocyclyl or
(D)-heteroaryl,
wherein aryl, heteroaryl, alkyl, D and cycloalkyl are unsubstituted or substituted;

Cy is benzene, pyridine or cyclohexane;

D is a bond or alkylene;

E is $CHCO_2Y$, $CHC(O)N(Y)_2$, $NSO_2R_{10}$, $CHN(Y)COR_{10}$, $CHN(Y)SO_2R_{10}$, $CHCH_2OY$ or $CHCH_2$heteroaryl;

G is D, CH-alkyl, O, C=O or $SO_2$, with the proviso that when G is O, the ring atom E is carbon;

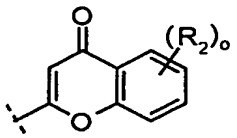
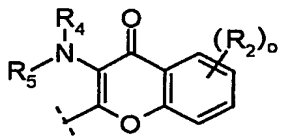
J is N or CH;
T is O or $NR_4$;
n is 0 - 2;
m is 0 - 2;
o is 0 - 3;
p is 0 - 2;
q is 0 or 1;
r is 1 or 2.

2. The compound of claim 1, wherein

Ar is:

aryl which may be substituted with one to three substituents independently selected from the group consisting of cyano, nitro, perfluoroalkoxy, halo, alkyl, (D)-cycloalkyl, alkoxy and/or haloalkyl;

$R_1$ is:

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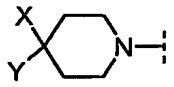
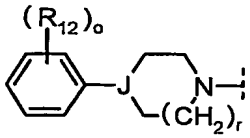
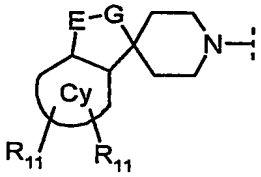
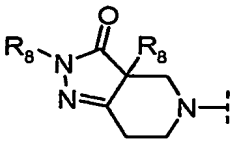





$R_2$ is independently:

hydrogen,
hydroxy,
halo,
alkyl,
alkoxy,
S-alkyl,
$SO_2$-alkyl,
O-alkenyl,
S-alkenyl,
haloalkyl or
(D)-cycloalkyl;

$R_4$ and $R_5$ are each independently:

hydrogen,
alkyl or
cycloalkyl, or
$R_4$ and $R_5$ together with the nitrogen to which they are attached form a 5- to 7-membered ring which may contain an additional heteroatom selected from O, S and $NR_6$;

$R_6$ is independently:

hydrogen,
alkyl,
C(O)alkyl,
(D)-aryl or
(D)-cycloalkyl;

$R_8$ is independently:

hydrogen,
alkyl or
(D)-aryl;

$R_9$ is independently:

hydrogen,
alkyl or
(D)-cycloalkyl;

$R_{10}$ is $R_9$;

$R_{11}$ is:

hydrogen,
halo,
alkyl,
alkoxy or
C≡N;

$R_{12}$ is independently:

hydrogen,
hydroxy,
cyano,
nitro,
halo,
alkyl,
alkoxy,
haloalkyl,
(D)-C(O)-heterocyclyl,
(D)-$C(O)N(R_{14})_2$,
(D)-$N(R_{14})_2$,
(D)-$NR_{14}COR_{14}$,
(D)-$NR_{14}CON(R_{14})_2$,
(D)-$NR_{14}C(O)OR_{14}$,
(D)-$NR_{14}C(R_{14})=N(R_{14})$,
(D)-$NR_{14}C(=NR_{14})N(R_{14})_2$,
(D)-$NR_{14}SO_2R_{14}$ or
(D)-$NR_{14}SO_2N(R_{14})_2$;

$R_{14}$ is independently:

hydrogen,
halo,
alkyl,
(D)-cycloalkyl,
alkoxy or
phenyl;

X is:

alkyl,
(D)-cycloalkyl,
(D)-aryl,

(D)-heteroaryl,
(D)-heterocyclyl,
(D)-NHC(O)$R_9$,
(D)-$CO_2R_9$ or
(D)-CON($R_9R_9$);

Y is:

hydrogen,
alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heterocyclyl or
(D)-heteroaryl;

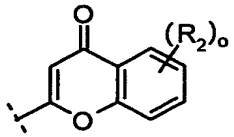
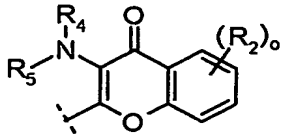
Cy is benzene or pyridine;
D is a bond or $C_1$ - $C_4$-alkylene;
E is $NSO_2R_{10}$, $CHN(Y)COR_{10}$ or $CHN(Y)SO_2R_{10}$;
G is D or CH-alkyl;
J is N or CH;
T is O or $NR_4$;
n is 0 or 1;
m is 0 or 1;
o is 0, 1 or 2;
r is 1.

3. The compound of claim 1 or 2, wherein

Ar is:

phenyl or naphthyl which may be substituted with one or two substituents independently selected from the group consisting of halo, alkyl, alkoxy and/or haloalkyl;

$R_1$ is:

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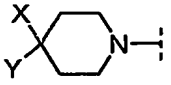
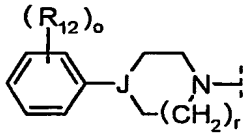
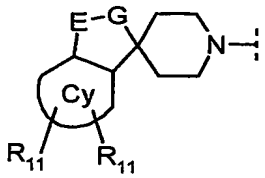
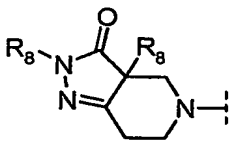





$R_2$ is independently:

hydrogen,
hydroxy,
alkoxy,
S-alkyl,
$SO_2$-alkyl,
O-alkenyl,
S-alkenyl,
halo or
alkyl;

$R_4$ and $R_5$ are each independently:

hydrogen or
alkyl, or
$R_4$ and $R_5$ together with the nitrogen to which they are attached form a 5- to 6-membered ring optionally containing an additional oxygen atom;

$R_6$ is hydrogen;

$R_8$ is independently:

alkyl or
(D)-aryl;

$R_9$ is alkyl;

$R_{10}$ is $R_9$;

$R_{11}$ is:
hydrogen,
halo and
$C_1$ - $C_4$-alkyl;

$R_{12}$ is independently:
cyano,
nitro,
halo,
alkyl,
(D)-C(O)-heterocyclyl,
(D)-$N(R_{14})_2$,
(D)-$NR_{14}COR_{14}$,
(D)-$NR_{14}CON(R_{14})_2$,
(D)-$NR_{14}C(O)OR_{14}$ or
(D)-$NR_{14}SO_2R_{14}$;

$R_{14}$ is independently:
hydrogen,
halo,
alkyl,
alkoxy or
phenyl;

X is:
alkyl

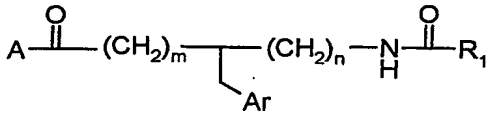
(D)-cycloalkyl,
(D)-heterocyclyl,
(D)-NHC(O)$R_9$ or
(D)-CON($R_9R_9$);

Y is:

hydrogen,
alkyl,
(D)-cycloalkyl or
(D)-heterocyclyl;

Cy is benzene;
D is a bond or $CH_2$;
E is $NSO_2R_{10}$;
G is D;
J is N or CH;
T is O or $NR_4$;
n is 0;
m is 0;
o is 0 or 1;
p is 0, 1 or 2;
q is 0 or 1;
r is 1.

4. A compound of structural formula (II):



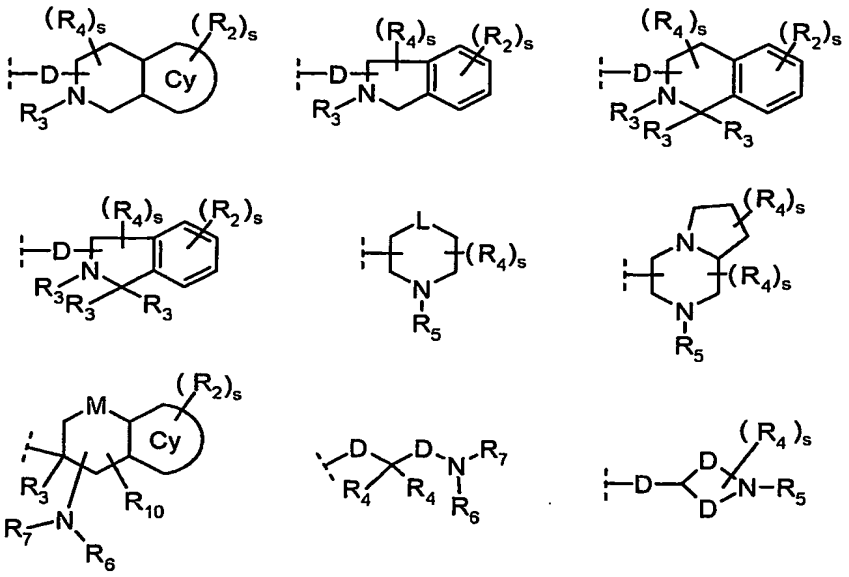
(II)

or a pharmaceutically acceptable salt or a solvate thereof, wherein

Ar is:

aryl or heteroaryl which may both be substituted;

$R_1$ is:



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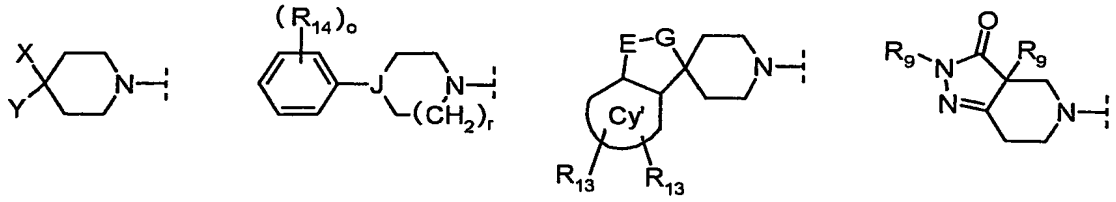


$R_2$ is independently:

hydrogen,

halo,

alkyl,

haloalkyl,

(D)-cycloalkyl,

(D)-aryl,

(D)-heteroaryl,

(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen), and

wherein aryl, heteroaryl, heterocyclyl, alkyl and cycloalkyl are substituted or unsubstituted;

$R_3$ is independently:

hydrogen,

alkyl,

$SO_2$alkyl,

$SO_2$aryl,

C(O)alkyl,

(D)-aryl or

cycloalkyl;

$R_4$ is independently:

hydrogen,

alkyl,

(D)-aryl,

(D)-heteroaryl,

(D)-$N(R_6)_2$,

(D)-$NR_6C(O)$alkyl,

(D)-$NR_6SO_2$alkyl,

(D)-$SO_2N(R_6)_2$,

(D)-$(O)_v$alkyl,

(D)-$(O)_v(D)NR_6COR_6$,

(D)-$(O)_v(D)NR_7SO_2R_7$,

(D)-$(O)_v$-heterocyclyl or

(D)-$(O)_v$(alkyl)-heterocyclyl;

$R_5$ is independently:

hydrogen,

alkyl,

(D)-phenyl,

C(O)alkyl,

C(O)phenyl,
$SO_2$-alkyl or
$SO_2$-phenyl;

$R_6$ and $R_7$ are each independently:
hydrogen,
alkyl or
cycloalkyl, or
$R_6$ and $R_7$ together with the nitrogen to which they are attached form a 5- to 8-membered ring,
wherein alkyl and cycloalkyl are unsubstituted or substituted;

$R_9$ is independently:
hydrogen,
alkyl,
(D)-aryl or
cycloalkyl;

$R_{10}$ is hydrogen or alkyl;

$R_{11}$ is independently:
hydrogen,
alkyl,
(D)-aryl,
(D)-heteroaryl or
(D)-cycloalkyl;

$R_{12}$ is independently:
$R_{11}$,
(D)-heterocyclyl,
(D)-$N(Y)_2$,
(D)-NH-heteroaryl or
(D)-NH-heterocyclyl,

wherein aryl, heteroaryl, alkyl, D, cycloalkyl and heterocyclyl are unsubstituted or substituted, or

two $R_{12}$ groups together with the atoms to which they are attached form a 5- to 8-membered mono- or bicyclic ring system;

$R_{13}$ is:

hydrogen,
halo,
alkyl,
alkoxy,
C≡N,
$CF_3$ or
$OCF_3$;

$R_{14}$ is independently:

hydrogen,
hydroxy,
cyano,
nitro,
halo,
alkyl,
alkoxy,
haloalkyl,
(D)-$C(O)R_{16}$,
(D)-$C(O)OR_{16}$,
(D)-$C(O)SR_{16}$,
(D)-C(O)-heteroaryl,
(D)-C(O)-heterocyclyl,
(D)-$C(O)N(R_{16})_2$,
(D)-$N(R_{16})_2$,
(D)-$NR_{16}COR_{16}$,
(D)-$NR_{16}CON(R_{16})_2$,
(D)-$NR_{16}C(O)OR_{16}$,

(D)-$NR_{16}C(R_{16})=N(R_{16})$,
(D)-$NR_{16}C(=NR_{16})N(R_{16})_2$,
(D)-$NR_{16}SO_2R_{16}$,
(D)-$NR_{16}SO_2N(R_{16})_2$,
(D)-$NR_{16}$(D)-heterocyclyl,
(D)-$NR_{16}$(D)-heteroaryl,
(D)-$OR_{16}$,
$OSO_2R_{16}$,
(D)-$[O]_q$(cycloalkyl),
(D)-$[O]_q$(D)aryl,
(D)-$[O]_q$(D)-heteroaryl,
(D)-$[O]_q$(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen when q=1),
(D)-$SR_{16}$,
(D)-$SOR_{16}$,
(D)-$SO_2R_{16}$ or
(D)-$SO_2N(R_{16})_2$,
wherein alkyl, alkoxy, cycloalkyl, aryl, heterocyclyl and heteroaryl are substituted or unsubstituted;

$R_{16}$ is independently:
hydrogen,
alkyl,
haloalkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen), and
wherein aryl, heteroaryl, heterocyclyl, alkyl and cycloalkyl are substituted or unsubstituted;

Cy is:

aryl,
heteroaryl,
heterocyclyl or
carbocyclyl;

X is:

alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-heterocyclyl,
(D)-C≡N,
(D)-CON($R_{11}R_{11}$),
(D)-$CO_2R_{11}$,
(D)-$COR_{11}$,
(D)-$NR_{11}C(O)R_{11}$,
(D)-$NR_{11}CO_2R_{11}$,
(D)-$NR_{11}C(O)N(R_{11})_2$,
(D)-$NR_{11}SO_2R_{11}$,
(D)-$S(O)_pR_{11}$,
(D)-$SO_2N(R_{11})(R_{11})$,
(D)-$OR_{11}$,
(D)-$OC(O)R_{11}$,
(D)-$OC(O)OR_{11}$,
(D)-$OC(O)N(R_{11})_2$,
(D)-$N(R_{11})(R_{11})$ or
(D)-$NR_{11}SO_2N(R_{11})(R_{11})$,
wherein aryl, heteroaryl, alkyl, D, cycloalkyl and heterocyclyl are unsubstituted or substituted;

Y is:

hydrogen,
alkyl,
(D)-cycloalkyl,

(D)-aryl,
(D)-heterocyclyl or
(D)-heteroaryl,
wherein aryl, heteroaryl, alkyl, D and cycloalkyl are unsubstituted or substituted;

Cy' is benzene, pyridine or cyclohexane;

D is a bond or alkylene;

E is $CHCO_2Y$, $CHC(O)N(Y)_2$, $NSO_2R_{10}$, $CHN(Y)COR_{12}$, $CHN(Y)SO_2R_{12}$, $CHCH_2OY$ or $CHCH_2$heteroaryl;

G is D, CH-alkyl, O, C=O or $SO_2$ with the proviso that when G is O, the ring atom E is carbon;

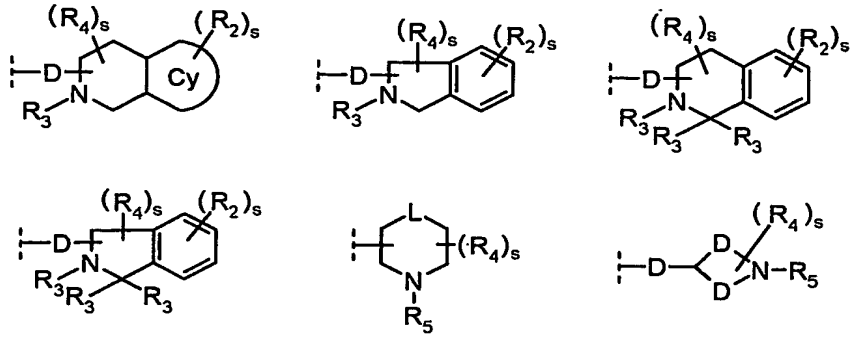
J is N or CH;
L is O, S or $NR_5$;
M is a bond, O, $S(O)_u$, $NR_5$ or $CH_2$;
n is 0 - 2, unless m is 0, then n is 1 or 2;
m is 0 - 2, unless n is 0, then m is 1 or 2;
o is 0 - 3;
p is 0 - 2;
q is 0 or 1;
r is 1 or 2;
s is 0 - 5;
v is 0 or 1;
u is 0 - 2.

5. The compound according to claim 4, wherein

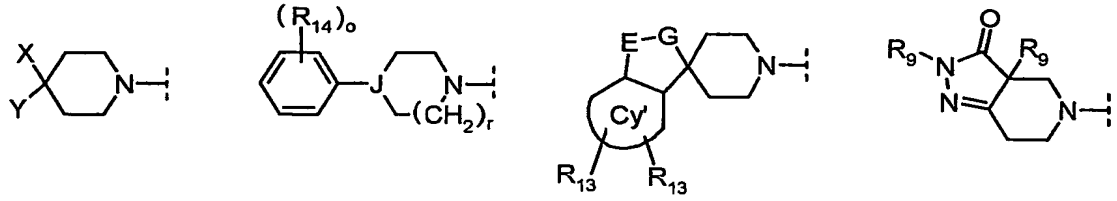
Ar is:

aryl which may be substituted with one to three substituents independently selected from the group consisting of cyano, nitro, perfluoroalkoxy, halo, alkyl, (D)-cycloalkyl, alkoxy and/or haloalkyl;

$R_1$ is:



A is:



$R_2$ is independently:

hydrogen,
halo,
alkyl,
haloalkyl,
alkoxy or
(D)-cycloalkyl;

$R_3$ is independently:

hydrogen or
alkyl;

$R_4$ is independently:
hydrogen,
alkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-$N(R_6)_2$,
(D)-$NR_6C(O)$alkyl or
(D)-$NR_6SO_2$alkyl;

$R_5$ is independently:
hydrogen or
alkyl;

$R_6$ is independently:
hydrogen,
alkyl or
cycloalkyl;

$R_9$ is hydrogen, alkyl or (D)-aryl;

$R_{10}$ is hydrogen or $C_1$ - $C_4$ alkyl;

$R_{11}$ is independently:
hydrogen or
alkyl;

$R_{12}$ is:
hydrogen or
alkyl;

$R_{13}$ is:
hydrogen,
halo,

alkyl,
alkoxy or
C≡N;

$R_{14}$ is independently:
hydrogen,
hydroxy,
cyano,
nitro,
halo,
alkyl,
alkoxy,
haloalkyl,
(D)-C(O)-heterocyclyl,
(D)-$C(O)N(R_{16})_2$,
(D)-$N(R_{16})_2$,
(D)-$NR_{16}COR_{16}$,
(D)-$NR_{16}CON(R_{16})_2$,
(D)-$NR_{16}C(O)OR_{16}$,
(D)-$NR_{16}C(R_{16})=N(R_{16})$,
(D)-$NR_{16}C(=NR_{16})N(R_{16})_2$,
(D)-$NR_{16}SO_2R_{16}$ or
(D)-$NR_{16}SO_2N(R_{16})_2$;

$R_{16}$ is:
hydrogen,
halo,
alkoxy,
alkyl,
(D)-cycloalkyl or
phenyl;

Cy is aryl;

X is:

alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heteroaryl,
(D)-heterocyclyl,
(D)-$NHC(O)R_{11}$,
(D)-$CON(R_{11}R_{11})$ or
(D)-$CO_2R_{11}$;

Y is:

hydrogen,
alkyl,
(D)-cycloalkyl,
(D)-aryl,
(D)-heterocyclyl or
(D)-heteroaryl;

Cy' is benzene or pyridine;

D is a bond or $C_1$ - $C_4$ alkylene;

E is $NSO_2R_{10}$, $CHN(Y)COR_{12}$ or $CHN(Y)SO_2R_{12}$;

G is D or CH alkyl;

J is CH or N;

L is $NR_5$;

M is a bond or $CH_2$;

n is 0 or 1, unless m is 0, then n is 1;

m is 0 or 1, unless n is 0, then m is 1;

o is 0, 1 or 2;

p is 0;

q is 0;

r is 1;

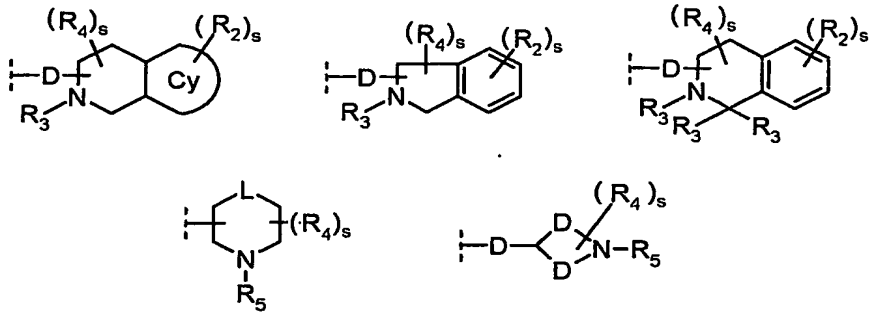
s is 0, 1, 2 or 3.

6. The compound according to claim 4 or 5, wherein

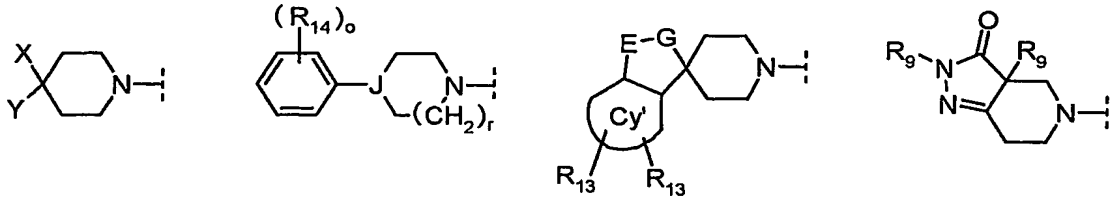
Ar is:

phenyl or naphthyl which may be substituted with one or two substituents independently selected from the group consisting of cyano, perfluoroalkoxy, halo, alkyl, (D)-cycloalkyl, alkoxy and/or haloalkyl;

$R_1$ is:



A is:



$R_2$ is:

hydrogen,
halo or
alkyl;

$R_4$ is hydrogen;

$R_5$ is hydrogen;

$R_9$ is independently:
hydrogen or
(D)-aryl;

$R_{10}$ is independently:
hydrogen,
methyl or
ethyl;

$R_{11}$ is independently:
hydrogen or
$C_1$ - $C_6$ alkyl;

$R_{13}$ is:
hydrogen,
methyl or
ethyl;

$R_{14}$ is independently:
cyano,
nitro,
halo,
alkyl,
(D)-C(O)-heterocyclyl,
(D)-$C(O)N(R_{16})_2$,
(D)-$N(R_{16})_2$,
(D)-$NR_{16}COR_{16}$,
(D)-$NR_{16}CON(R_{16})_2$,
(D)-$NR_{16}C(O)OR_{16}$ or
(D)-$NR_{16}SO_2R_{16}$;

$R_{16}$ is independently:
hydrogen,

halo,
alkyl,
alkoxy or
phenyl;

Cy is benzene;

X is:
alkyl,
(D)-cycloalkyl,
(D)-heterocyclyl,
(D)-$NHC(O)R_{11}$ or
(D)-$CON(R_{11}R_{11})$;

Y is:
alkyl,
(D)-cycloalkyl or
(D)-heterocyclyl;

Cy' is benzene;
D is a bond or $CH_2$;
E is $NSO_2R_{10}$;
G is D;
J is CH or N;
L is $NR_5$;
n+m=1;
o is 1;
r is 1;
s is 0 or 1.

7. The compound of any of claims 1 to 6 for use as a medicament.

8. Use of the compound of any of claims 1 to 6 for the preparation of a medicament for the treatment or prevention of disorders, diseases or conditions responsive to the inactivation or activation of the melanocortin-4 receptor in a mammal.

9. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of cancer cachexia.

10. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of muscle wasting.

11. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of anorexia.

12. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of anxiety and/or depression.

13. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of obesity.

14. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of diabetes mellitus.

15. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of male or female sexual dysfunction.

16. Use according to claims 8 for the preparation of a medicament for the treatment or prevention of erectile dysfunction.

17. A pharmaceutical composition which comprises a compound of any of claims 1 to 6 and a pharmaceutically acceptable carrier.